

Date: Wed, 26 May 93 15:58:58 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #645
To: Info-Hams

Info-Hams Digest Wed, 26 May 93 Volume 93 : Issue 645

Today's Topics:

 2mtrs and airlines
 Cleaning house
 GFCI tester
 nec2.in.c problems
 Nickel-hydride batteries
 REAL Mods for the HTX-202
 roof mounted tri-band beam
 Shortened G5RV's bands?
 VHF/UHF antennas
 Want 5MHZ 100W Transceivers for use in Philippines

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 26 May 93 20:21:52 GMT
From: news-mail-gateway@ucsd.edu
Subject: 2mtrs and airlines
To: info-hams@ucsd.edu

>...

> Even a receiver can be a problem. The local oscillator of your HT could be
> sitting on the VOR or ILS frequency. Even passing part 15 emissions doesn't
> guarantee you won't mess up a sensitive receiver whose antenna is sitting
> close by. Look at all the people who can't copy 2 meters on their HT's with
> their part 15 approved computers on in the same room. I had been listening
> to ground traffic with HT and switched it off but left the plug to my
> headset on it when the Stewardess came by a few flights back. She stopped

> mid aisle, turned around, and chewed me out for running a radio on board.
> (rules prohibit it) I had to break it down in front of her. Did it with a
> smile. :-) Now I demo it at the baggage check (don't send it through the
> x-ray, I prefer not to have static ram or NVRAM corrupted by a soft x-ray
> hit thank you) then take the battery off it and stow it in my carry on so
> it can't become switched on accidentally.

>
>

Not sure I understand what could happen to static ram? It loses its memory when power is off anyway? Don't know how NVRAM works, but assume that it must be something like eeproms, or perhaps ram that retains its memory via capacititive static charge. I had allways assumed that freqs were stored in HTs using eeproms, but perhaps another technology is used, if so, how does it work. My wife carried her HT on a plane once, and sent it through the x-ray conveyer. When she tried to use it (once off the plane), it was totally messed up! It still had the freqs programmed in, but it was locked into transmit mode, yet not transmitting, could not receive anything on any freq (not even static if I remember what she told me correctly). She had to reset the rig (func on)(this was an Alinco 580), and then it worked OK. Anyway, it seems like the x-rays zapped something, but it seems like they hit something other than the freq memory, and whatever it was, it was restored by the reset. This sounds like they store something other than freq/offset/etc data in the non volatile memory for some reason?

Date: 25 May 93 00:41:36 EDT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.kei.com!eddie.mit.edu!
news.intercon.com!psinntp!arrl.org@network.UCSD.
Subject: Cleaning house
To: info-hams@ucsd.edu

I've updated my system and need to do some housecleaning.
Reasonable offers considered.

FOR SALE Computer System #1

Tri-Star 80386/20-MHz system

- o 8 Mb RAM installed on motherboard
- o Slot for additional RAM board
- o Math coprocessor installed
- o Two (2) 65-Mb Mitsubishi hard disk drives
- o One (1) 3.5-inch, 1.44-Mb floppy
- o One (1) 5.25-inch 1.2Mb floppy
- o NEC 3D 14-inch SVGA monitor with tilt/swivel stand
- o Boca Super VGA video card with 1 Mb RAM (ET-4000 chip)

- o 200-Watt power supply
- o Tower case
- o FK-2001 keyboard
- o Operating/technical manuals

System is in *excellent* condition: \$1300, or best offer.
 (See Tri-Star's ads in "PC Magazine.")

Computer System #2

- XPC 8088 4.77/8-MHz turbo system
- o Math coprocessor installed
 - o Two (2) 360-kb floppy disk drives
 - o One (1) 30-Mb hard disk drive
 - o BASIC in ROM (use with IBM BASIC/BASICA files)
 - o CompuAdd 12-inch mono VGA display (almost new; used little)
 - o ATI video card with 512 kb RAM
 - o Desktop case
 - o 200-Watt, double-fan power supply (not the 65-Watt original)
 - o Northgate Omnikey Plus keyboard
 - o Operating/technical reference manuals

System is in *excellent* condition: \$350, or best offer

Other Items available:

Boca SVGAX1 Super VGA card, 1 Mb RAM, 32k colors\$100

Epson LQ-850 printer, like new, very little use \$350
 (Printer is supplied with six (6) new ribbons.)

Epson ribbon re-inker.....\$25
 (Works *very* well and pays for itself quickly.)

Computer floor stand for vertical mounting\$5

Central Point Copy II Plus Option Board and software, and the
 Copy II PC software-only version. Both for.....\$40

IBM PC-XT technical reference manuals (2): "Technical Reference

Personal Computer XT and Portable Personal Computer" and
 Hardware Maintenance Service." Both for\$35

HP-16C Programmer's Calculator (like new).....\$35

Vanguard WEPIX 2000-B Environmental Satellite Receiver...\$300
(This receiver is brand new, never put to use.)

Vanguard WEFAXTENNA Model APT-2 with low-noise preamp.....\$100
(In very good condition. One (of eight) ground-plane rod
broken. Preamp mounts internally at the antenna -- protected
from the elements, or you can remove it for in-station use.
BNC connectors on cable make this very easy to do.)

OFS weatherfax board and software.....\$250
(V 2 and 3 software. Can be easily upgraded to add recent
circuit changes and V 5 software. See the OFS ads in
"Weatherwise," "QST" and other magazines.)

Software available:

Norton Desktop for DOS (unopened).....\$45

Lotus Magellan.....\$25

Microsoft Macro Assembler 5.0.....\$50

IBM Macro Assembler 2.0.....\$50

Gato.....\$15

(Action game with a modern edition of Cornelius van Drebbel's
submersible.)

F-15 Strike Eagle.....\$15

(Action game in which you pilot a recent version of the Wright
brothers' invention.)

I prefer pick up of the larger items. Otherwise, please add
shipping costs. I refund overpayment in excess of \$1.50.

Please provide me with your full address and a daytime phone
and/or fax number at which I can reach you.

Thanks.

Paul Pagel/N1FB
American Radio Relay League
225 Main St
Newington, CT 06111 203-666-1541 fax 203-665-7531

Date: Wed, 26 May 1993 17:26:55 GMT
From: haven.umd.edu!darwin.sura.net!bogus.sura.net!news-feed-1.peachnet.edu!
umn.edu!csus.edu!netcom.com!wa2ise@ames.arpa
Subject: GFCI tester

To: info-hams@ucsd.edu

You can wire a power plug (3 prongs) with a 15K 2W resistor and a push button switch to create a GFCI outlet tester. connect resistor to ground pin and other end to the normally open on the switch, and the common on the switch to the hot powerline pin on the plug. I found an incorrectly wired GFCI in the bathroom of my apartment. The test button in the GFCI would pop, but the power didn't get switched off. The above plug in tester will find such errors. Turns out that the GFCI had the load and line connections backwards. The line leads pass thru a toroid, and a circuit looks for a mismatch of current on the hot and neutral wires. More current on the hot than neutral may mean someone's getting zapped (current from hot thru person to grounded plumbing) and cut power fast! using a relay. GFCI's have a load connection so you can daisy chain additional outlets downstream and have protection on those regular outlets. But if you get the line and load connections backwards, you'll protect the downstream outlets, but the GFCI outlet will stay hot when it goes into protect mode. Just pressing "Test monthly" button to see if "reset" pops will not find this error, unless you have a radio on or something connected to the GFCI.

Date: Wed, 26 May 1993 15:10:45 GMT
From: mcsun!chsun!hslrswi!mwm@uunet.uu.net
Subject: nec2.in.c problems
To: info-hams@ucsd.edu

This share archive contains a corrected makefile for nec2.in.c.

There have been 4 problems reported.

1. The makefile looks for n.c n.o and n.f - these have been renamed nec2.c nec2.o and nec2.f

Use the makefile in this posting.

2. Can't write output files but will output to the screen.

Fortran 77 only supports 2 file modes old and new. An "old" file must exist and a "new" file must not exist. It will not overwrite an existing file.

The output files included in the distribution have the same names as the test case output files so fortran77 will not write over them. With this Makefile type "make saveit" and it will move the sample output files to a new name.

"make test " will then build nec2 and run the test cases and diff them with the sample results.

3. Missing math routines on some machines. Included in the original

distribution

were the fortran math routines not in the sun math library. On the RS/6000 some additional routines are needed. They are included here. You will need to update the makefile adding the routines. All these and more are contained in the f2c distribution available from any gnu site or research.att.com.

4. Warning message in compile about a line of code that is not reached. Just ignore the warning.

Another problem I have noticed using gcc on a 68k machine. If optimization is on the program will fail. I have had other problems with gcc on a 68k based machine.

mike aa2ay/hb9gau
mwm@hasler.ascom.ch

```
#!/bin/sh
# This is a shell archive, meaning:
# 1. Remove everything above the #! /bin/sh line.
# 2. Save the resulting text in a file.
# 3. Execute the file with /bin/sh (not csh) to create the files:
#   Makefile
#   d_cnjg.c
#   d_imag.c
#   d_int.c
#   d_lg10.c
#   pow_dd.c
#   z_abs.c
#   z_exp.c
#   z_sqrt.c
# This archive created: Wed May 26 14:18:28 1993
export PATH; PATH=/bin:$PATH
if test -f 'Makefile'
then
    echo shar: will not over-write existing file "'Makefile'"
else
    cat << \SHAR_EOF > 'Makefile'
MAKEFILE= Makefile
CLOCALFLAGS    = -DSkip_f2c_Udefs
ROOTDIR        = $$HOME

CPREFIX=
TARGET=  nec2
```

```

CC    = $(CPREFIX)cc -O
INCLUDE = .
CFLAGS    = -I$(INCLUDE) $(CLOCALFLAGS)
YFLAGS    = -d
FFLAGS    = -onetrip -w66
LDFLAGS   = -n
LIBS      = -lm -lc
#    Directory where program is installed
INSDIR    = $(ROOTDIR)/bin
LINT      = $(CPREFIX)lint $(CLOCALFLAGS) -habx
AR        = $(CPREFIX)ar
LORDER    = $(CPREFIX)lorder
RANLIB    = $(CPREFIX)ranlib

HEADERS   = atexit.h f2c.h fio.h fmt.h fp.h lio.h local.h
INCLUDES=
CFILES    = at.c atexit.c backspace.c cabs.c close.c dolio.c endfile.c err.c fmt.c\
  fmtlib.c i_indx.c i_len.c lread.c lwrite.c main.c nec2.c open.c pow_di.c \
  rdfmt.c rewind.c rsfe.c s_cat.c s_cmp.c s_copy.c s_stop.c secnds.c sfe.c
sig_die.c sue.c uio.c util.c wref.c\
  wrtfmt.c wsfe.c wsle.c z_div.c
FFILES    = nec2.f
ASFILES   =
YACCFILES=
LEXFILES=
SHFILES   =
MANFILES=
OUTFILES= TESTEX1 TESTEX2 TESTEX3 TESTEX4 TESTEX5 TESTEX6
DOCFILES= OTESTEX1 OTESTEX2 OTESTEX3 OTESTEX4 OTESTEX5 OTESTEX6
INPUTFILES = EX1 EX2 EX3 EX4 EX5 EX6 EX7
OTHERS    =
OBJECTS   = at.o atexit.o backspace.o cabs.o close.o dolio.o endfile.o err.o fmt.o\
  fmtlib.o i_indx.o i_len.o lread.o lwrite.o main.o nec2.o open.o pow_di.o \
  rdfmt.o rewind.o rsfe.o s_cat.o s_cmp.o s_copy.o s_stop.o secnds.o sfe.o
sig_die.o sue.o uio.o util.o wref.o\
  wrtfmt.o wsfe.o wsle.o z_div.o
SOURCE    = $(MAKEFILE) $(MANFILES) $(DOCFILES) $(SHFILES) $(OTHERS)
          $(HEADERS) $(INCLUDES) $(YACCFILES) $(LEXFILES) $(CFILES)
          $(FFILES) $(ASFILES)
LISTFILES= $(MAKEFILE) $(SHFILES) $(HEADERS) $(INCLUDES) \
          $(YACCFILES) $(LEXFILES) $(CFILES) $(FFILES) $(ASFILES)

$(TARGET):    $(OBJECTS)
              $(CC) $(LDFLAGS) $(OBJECTS) -o $(TARGET) $(LIBS)
              size $(TARGET)

# Just to be save if you don't have f2c
#nec2.c: nec2.f

```

```

#    f2c $?

install: $(INSDIR)/$(TARGET)

$(INSDIR)/$(TARGET):    $(TARGET)
    cp $(TARGET) $(INSDIR)/$(TARGET)
    chmod 711 $(INSDIR)/$(TARGET)

tar:
    tar rfc b /dev/rht0 20 $(SOURCE)
cpio:
    ls $(SOURCE) | cpio -oB
netsend:
    netsend $(dest) $(SOURCE)
lint:
    $(LINT) $(CLOCALFLAGS) -I$(INCLUDE) $(CFILES)
clean:
    -rm -f $(OBJECTS)
clobber: clean
    -rm -f $(TARGET)
touch:
    touch $(TARGET)
print:    list60
list:     list66
list66:
    @pr -n -w132 -l66 $(LISTFILES)
list60:
    @pr -n -w132 -l60 $(LISTFILES)
list51:
    @pr -n -w132 -l51 $(LISTFILES)
vgrind:
    @vgrind $(LISTFILES)
test:    nec2 $(INPUTFILES) $(DOCFILES)
    -rm $(OUTFILES)
    echo EX1 >t
    nec2 <t
    -diff TESTEX1 OTESTEX1
    echo EX2 >t
    nec2 <t
    -diff TESTEX2 OTESTEX2
    echo EX3 >t
    nec2 <t
    -diff TESTEX3 OTESTEX3
    echo EX4 >t
    nec2 <t
    -diff TESTEX4 OTESTEX4
    echo EX5 >t

```



```

nec2 <t
-diff TESTEX5 OTESTEX5
echo EX6 >t
nec2 <t
-diff TESTEX6 OTESTEX6
echo EX7 >t
nec2 <t
-diff TESTEX7 OTESTEX7
rm -f t

```

saveit:

```

-mv TESTEX1 OTESTEX1
-mv TESTEX2 OTESTEX2
-mv TESTEX3 OTESTEX3
-mv TESTEX4 OTESTEX4
-mv TESTEX5 OTESTEX5
-mv TESTEX6 OTESTEX6
-mv TESTEX7 OTESTEX7

```

depend:

```

sed -n -e '1,/^\#\#\# DO NOT DELETE THIS LINE./p' < $(MAKEFILE) > $
(MAKEFILE).new
-for i in $(YACCFILES) $(LEXFILES) $(CFILES) $(FFILES) ; do\
  base=`expr $$i ':' '\(.*\).[cylf]$$'`; \
  suffix=`expr $$i ':' '.*\.[cylf]$$'`; \
  if /bin/test $$suffix = l ; then\
    lex $$i;\
    mv lex.yy.c $$base.c;\
    suffix=c;\
    echo "$$base.c:    $$base.l" >> $(MAKEFILE).new;\
  elif /bin/test $$suffix = y ; then\
    yacc $(YFLAGS) $$i;\
    mv y.tab.c $$base.c;\
    suffix=c;\
    echo "$$base.c:    $$base.y" >> $(MAKEFILE).new;\
    echo "y.tab.h:    $$base.y" >> $(MAKEFILE).new;\
  fi;\
$(CC) $(CLOCALFLAGS) -I$(INCLUDE) -E $$base.$$suffix |\
grep '^# [0-9][0-9]* ".*"$$' > /tmp/grep$$$$;\
sed -e 's/.*"\(.*\) "$$/\1/' -e 's/^\.\.\.\./' < /tmp/grep$$$$ |\
sort -u |\
awk\
  "BEGIN { line=\"$$base.o:  \"}\
  {\
    if(length(line \$$$$)>63)\
    {\
      print line,\"\\\\\\\\\\\\\\\\\";\
      line=\"          \\\$$$$\

```

```

        }\
        else\
            line=line\" \"\$$0\
    }\
    END { print line}"\
>> $(MAKEFILE).new;\
done;\
rm /tmp/grep$$$$
mv $(MAKEFILE).new $(MAKEFILE)
#### The following dependancies are/can be generated automatically
#### by 'make depend'. Listen to this warning
####
#### Do NOT put any of your own dependancies below this line,
#### they will be removed
#### DO NOT DELETE THIS LINE. USED FOR MAKE DEPEND
at.o:
atexit.o:
backspace.o:
cabs.o:
close.o:
dolio.o:
endfile.o:
err.o:
fmt.o:
fmtlib.o:
i_indx.o:
i_len.o:
lread.o:
lwrite.o:
main.o:
nec2.o:
open.o:
pow_dd.o:
pow_ri.o:
rdfmt.o:
rewind.o:
rsfe.o:
s_cat.o:
s_cmp.o:
s_copy.o:
s_stop.o:
secnds.o:
sfe.o:
sig_die.o:
sue.o:
uio.o:
util.o:
wref.o:

```

```

wrtfmt.o:
wsfe.o:
wsle.o:
SHAR_EOF
fi # end of overwriting check
if test -f 'd_cnjg.c'
then
    echo shar: will not over-write existing file "'d_cnjg.c'"
else
cat << \SHAR_EOF > 'd_cnjg.c'
#include "f2c.h"

d_cnjg(r, z)
doublecomplex *r, *z;
{
    r->r = z->r;
    r->i = - z->i;
}
SHAR_EOF
fi # end of overwriting check
if test -f 'd_imag.c'
then
    echo shar: will not over-write existing file "'d_imag.c'"
else
cat << \SHAR_EOF > 'd_imag.c'
#include "f2c.h"

double d_imag(z)
doublecomplex *z;
{
    return(z->i);
}
SHAR_EOF
fi # end of overwriting check
if test -f 'd_int.c'
then
    echo shar: will not over-write existing file "'d_int.c'"
else
cat << \SHAR_EOF > 'd_int.c'
#include "f2c.h"

double d_int(x)
double real *x;
{
    double floor();

    return( (*x>0) ? floor(*x) : -floor(- *x) );
}

```

```

SHAR_EOF
fi # end of overwriting check
if test -f 'd_lg10.c'
then
    echo shar: will not over-write existing file "'d_lg10.c'"
else
cat << \SHAR_EOF > 'd_lg10.c'
#include "f2c.h"

#define log10e 0.43429448190325182765

double d_lg10(x)
doublereal *x;
{
double log();

return( log10e * log(*x) );
}
SHAR_EOF
fi # end of overwriting check
if test -f 'pow_dd.c'
then
    echo shar: will not over-write existing file "'pow_dd.c'"
else
cat << \SHAR_EOF > 'pow_dd.c'
#include "f2c.h"

double pow_dd(ap, bp)
doublereal *ap, *bp;
{
double pow();

return(pow(*ap, *bp) );
}
SHAR_EOF
fi # end of overwriting check
if test -f 'z_abs.c'
then
    echo shar: will not over-write existing file "'z_abs.c'"
else
cat << \SHAR_EOF > 'z_abs.c'
#include "f2c.h"

double z_abs(z)
doublecomplex *z;
{
double cabs();

```

```

return( cabs( z->r, z->i ) );
}
SHAR_EOF
fi # end of overwriting check
if test -f 'z_exp.c'
then
    echo shar: will not over-write existing file "'z_exp.c'"
else
cat << \SHAR_EOF > 'z_exp.c'
#include "f2c.h"

VOID z_exp(r, z)
doublecomplex *r, *z;
{
double expx;
double exp(), cos(), sin();

expx = exp(z->r);
r->r = expx * cos(z->i);
r->i = expx * sin(z->i);
}
SHAR_EOF
fi # end of overwriting check
if test -f 'z_sqrt.c'
then
    echo shar: will not over-write existing file "'z_sqrt.c'"
else
cat << \SHAR_EOF > 'z_sqrt.c'
#include "f2c.h"

VOID z_sqrt(r, z)
doublecomplex *r, *z;
{
double mag, sqrt(), cabs();

if( (mag = cabs(z->r, z->i)) == 0.)
    r->r = r->i = 0.;
else if(z->r > 0)
{
    r->r = sqrt(0.5 * (mag + z->r) );
    r->i = z->i / r->r / 2;
}
else
{
    r->i = sqrt(0.5 * (mag - z->r) );
    if(z->i < 0)
        z->i = - z->i;
    r->r = z->i / r->i / 2;
}
}

```

```
    }  
}  
SHAR_EOF  
fi # end of overwriting check  
#    End of shell archive  
exit 0
```

Date: 26 May 93 22:34:56 GMT
From: news-mail-gateway@ucsd.edu
Subject: Nickel-hydride batteries
To: info-hams@ucsd.edu

> RPH0470@tntech.EDU (Richard Hosker) writes:
> >You can use any existing nicad charger. The NiMH cells are supposedly
> >happiest with a 110 mA charge current, but can deal with anything from zero
> >to 300+ mA. Most "rapid" chargers supply 150-200 mA; this should work.
>
> I heard that NiMH is more sensitive and damaging to over charging, what
> kind of charger can detect it? Only solution now is to drain it all, and
> time it with current multiply (still need efficiency factor for heat diss.)
> But it defeats one of the reasons of NiMH, being able to be charged at
> any time and no memory effect. (now NiCd memory effect is debatable, and
> many people said it is mild only was exaggerated by myth)

I believe the problem is with *rapid*, high-current overcharging, which
causes adverse heat buildup in the cells. (NiMH cells have a higher
internal resistance than nicads, hence dissipate more power as heat.)
As far as I know, NiMH's are not easily damaged by low-current (trickle)
overcharging.

As for a charging efficiency factor, this is one of the things I'll have to
investigate in the course of converting my scanner to NiMH power; I'll post
whatever insights I gain...

> >(Notice I say "should." As yet, I have no hard experience with these cells
> >one way or another; the above, and my earlier comments, are based on
> >specifications supplied by the manufacturer. As I mentioned, I'm waiting
> >for a shipment of NiMH cells, and will report on their performance and
> >characteristics presently. Stay tuned. :-)
>
> Where do you buy them? How much? The May 93 issue of the Japanese CQ ham
> radio magazine has an article about it, this one is made by Green Power,
> which is the brand you buy NiCd in Supermarket shelves. They also have some
> stores' ads showing it. Another sidekick, a full page ad by Fuji, selling
> their Lithium cells in AA size, didn't say what voltage though. (should be
> 3V if same chemicals as other Lithium).

> The GP NiMH shows 1.2AH on AA size, and was tested on a Standard C550
> HT, the TX power vs. time curve shows that it actually last longer than
> the 850mAh NiCd AA, and the trailing curve is not as sharp as NiCd.

NiMH's are now available in AA and C cell sizes from:

Harding Energy Systems
826 Washington Avenue
Grand Haven, MI 49417
phone (616) 798-7033

Prices for AA's are \$6 per cell with solder tabs, or \$5 each without, and \$5 for shipping. (\$5 should cover shipping a fair number of AA cells.)

Harding sells only to individuals--no dealers so far--and takes either cash or COD's. (No credit cards. :-()

These AA's are 1100 mAh, by the way.

The Fuji lithium AA's are, believe it or not, 1.5 V. It's some sort of a hack on the normal lithium chemistry, which ordinarily yields 3V as you mention. As disposables go, this is one helluva battery, both in terms of capacity and shelf life.

```
=====
Richard Hosker      : ttttttttt
rph0470@tntech.edu  :  t u t u  Tennessee Technological University
PO Box 6083 TTU      :  t u t u  Cookeville, TN
Cookeville, TN 38505 :  t uuuuuu
-----
```

"When the going gets weird, the weird turn pro."--Hunter S. Thompson

```
=====
#include <disclaimer.h>
-----
```

Date: Tue, 25 May 1993 05:27:40 GMT
From: elroy.jpl.nasa.gov!swrinde!cs.utexas.edu!asuvax!ennews!telesys!bradf!
brad@decwrl.dec.com
Subject: REAL Mods for the HTX-202
To: info-hams@ucsd.edu

Fred McKenzie (fred-mckenzie@ksc.nasa.gov) wrote:

:
: It turns out that the HTX-202 is compatible with Icom battery packs for the
: old IC-2AT. Some of these packs are available at a higher voltage, and can
: be rapid-charged from the Icom BC-35 charger. I suggest you get
: information about this from either Icom dealers, or from battery

: manufacturers who offer less expensive packs. If someone would research
: specific battery model numbers, and the resulting radio output power, the
: information would be a good follow-up posting.

The ICOM IC-CM8 battery pack works great. It has 8 of the 1.2v nicads in
it of course, for a total of 9.6v when fully charged. I get a healthy
6 watts out with it. The only catch is that both the radio and the pack
have a ball detent ... you will need to remove the one from the pack,
for a snug fit. Minor disassembly of the pack is involved ... takes
about ten minutes. I got lucky and found my pack at a hamfest for \$15.

73

--

-= Brad Fisher -= (PPSEL)	I'm just	SCINET Inc.
usenet: brad@bradf.tnet.com	a	Tech Support Manager
-or-...!asuvax!enuucp!telesys!bradf!brad	wanna be	Scottsdale, AZ
packet: N7XSS@KC7Y.AZ.USA.NA	UNIX guru!	602/991-3445

Date: Wed, 26 May 1993 16:38:53 GMT
From: saimiri.primate.wisc.edu!caen!malgudi.oar.net!ucbeh.san.uc.edu!
ucunix.san.uc.edu!morris@ames.arpa
Subject: roof mounted tri-band beam
To: info-hams@ucsd.edu

In article <9305241532.AA03807@ginzo.wellfleet> ginsburg@ginzo.wellfleet.COM
(Scott Ginsburg) writes:

>

>I'm interested in getting a tri-band beam (maybe something like a Cushcraft
>A3S) up in the air without putting up a tower. I've heard of people roof
>mounting such antennas, and am looking for advice from those that have either
>done it or have researched it and decided it's a bad idea.

I bought an A3 and HamIV rotor from a YL who had it up on a one-story on
a 4-foot (5-foot?) tripod. I've bought a 9-foot Rohn tripod to use on
the top of my 3-story house (My wife said I can't have a tower but she
doesn't know what a 9' tripod is going to look like (-: (-:). I hope
to put it all up this spring. I'll be a little cramped for guying
opportunities but I definitely am going to go the route suggested in the
ARRL books of going through the roof boards with a long carriage bolt to
a backing board across the roof joists. Nothing this big can hold onto
the roof boards without ripping both off the roof! I'll have to give up
a little on mounting the tripod close to the edge of the house in order
to get the angle to put up guys, but I think it'll be the better choice
in the long run.

No practical advice, then, just untested opinion (-:.

Ted Morris, WB8VNV

Date: 26 May 93 21:39:26 GMT
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com
Subject: Shortened G5RV's bands?
To: info-hams@ucsd.edu

jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:

>I tune across the band. Here's part of my question, what is the impedance
>of 20 meters at 3/4 of a wave and 40 at 3/8 of a wave? The 450 ohm
>ladder line acts a transformer and so I assume causes the impedances
>to be somewhat close. Here's another interesting point. 10 meters at
>1 1/2 wavelengths comes out to 49.43 feet also however it doesn't load
>worth a damn. What would the impedance be at that? I am hoping that
>someone has enough spare time and is bored enough to work these out
>as I don't have access to any programs to calculate these. I am
>hoping to get a better understanding on why my G5RV loads up and works so
>well on 20 and 40 meters. Thanks and 73!

Can you run MININEC or NEC-2? Either one will immediately give you the answer to your first question with minimal effort, i.e. what is the antenna's impedance. To calculate the impedance seen by the transmitter, you need to use a Smith chart or something similar to determine the impedance transformation performed by the feed line. Another way to determine the load seen by the transmitter is to treat the feed line as a series transformer and apply the formulas from the ARRL Antenna Book to calculate what the antenna system's impedance is.

73,
Todd
N9MWB

Date: 26 May 93 00:33:19 EDT
From: haven.umd.edu!darwin.sura.net!europa.eng.gtefsd.com!eddie.mit.edu!news.intercon.com!psinnntp!arrl.org@ames.arpa
Subject: VHF/UHF antennas
To: info-hams@ucsd.edu

In rec.radio.amateur.misc, gary@ke4zv.uucp (Gary Coffman) writes:
>In article <C7LE91.KDF.2@cs.cmu.edu> mkb@cs.cmu.edu writes:
>>
>>This is a two part question. First, I'd like to experiment with

>>antennas in the 2m, 70cm, and 33cm bands, at moderately low power
>>(less than 25 watts). What tools should I be looking for, in terms of
>>power and SWR measurment and tuning? I'd like to keep things on the
>>cheap side...

>

>In many cases it's simpler if you test your antenna by receiving a
>reference weak source rather than trying to test it as a transmitting
>antenna. Since most good antenna designs are reciprocal, this will
>give similar results. A step attenuator and a receiver with a signal
>strength indicator are the only essential tools.

I've discovered that you don't always need to provide the source!

If you use a sensitive SSB receiver, you can often use the noise coming out of many buildings as a noise source! Its often pretty broadband so you can easily test a variety of frequencies. Of course, there are often multiple sources that may interfere with each other. But, you should be able to move the antenna to a slightly different location and determine whether there is a problem or not. I've actually done this a few times and it works quite well for confirming that a good design is indeed working. On the other hand, if you don't know where the sources are yet and your antenna has a trashy pattern, you might end up terribly confused.

But, if you already have a SSB receiver, how much cheaper can you get?

Warning: Not all buildings are suitable for this purpose....

First choice would be someplace you work you or go to school, unless you can't tell people where you work :-).

Zack Lau KH6CP/1

Internet: zlau@arrl.org

"Working" on 24 GHz SSB/CW gear

Operating Interests: 10 GHz CW/SSB/FM

US Mail: c/o ARRL Lab

80/40/20 CW

225 Main Street

Station capability: QRP, 1.8 MHz to 10 GHz

Newington CT 06111

modes: CW/SSB/FM/packet

amtor/baudot

Phone (if you really have to): 203-666-1541

Date: 26 May 93 10:44:17 EDT

From: world!ksr!jfw@decwrl.dec.com

Subject: Want 5MHZ 100W Transceivers for use in Philippines

To: info-hams@ucsd.edu

sorgatz@avatar.tti.com (Erik Sorgatz) writes:

>In article <C7Lot4.8pt@cbnewse.cb.att.com> levy@ihope.ih.att.com writes:
>>My apologies in advance if this is the "wrong" place to post this.
>>I have a friend who is a pastor of a Free Methodist church in the Chicago area
>>who is also an amateur radio operator. He has been asked by a group of Free
>>Methodist churches in the Philippines to help them set up a communications
>>network. They are trying to find a pair of 5MHZ transceivers (about 100W) to
>>be a part of this network. But my friend is having a difficult time trying to
>>find such at a reasonable price in the U.S. because this is a forbidden
>>frequency range here. Also they are trying to get this equipment before May
>>30 (at least showing a bill of sale) to keep from having to start over the
>>license application process with the Philippine government.

> Better check your situation at the door...5MHz as well as 10, 15, 20, 25 and
> 2.5MHz
>all all RESERVED BY INTERNATIONAL AGREEMENT to time standard information
>stations
>such as WWV, etc.

Uh, if someone were to ask about a "30 meter" amateur transceiver, would you
post a similar flame on the grounds that 9.999MHz is not part of an amateur
band?

>As for finding equipment to run 100w in the region AROUND 5 MHz,
>that's easy! Most (if not all!) modern amateur transceivers can be modified
>to add
>transmit capability in that part of the spectrum.

Something else they may need to worry about: if the Philippine equivalent of
the FCC has a "type-acceptance" criteria for equipment, they may find it
illegal to operate equipment which hasn't been purchased from a local dealer
and which isn't from a manufacturer that has paid the necessary bribes.

End of Info-Hams Digest V93 #645
